

REMARKS

THE PENDING ELECTED CLAIMS

Elected claims 21-40 are pending. Both main claims 21 and 33 have been amended as has dependent claim 23.

THE RESTRICTIONS

The restrictions are absolutely spurious, the Examiner failing completely to meet his burden of proof to show separately patentable invention categories. The restrictions contradict the “single invention” election of the parent application, where all of the claims of the present application were determined by the same Examiner to comprise a single invention.

The arbitrary nature of the examination process is illustrated by the fact that in U.S. Parent Application (which precedent should control) Claims 10-43, 51-54, 89-92, 94-97 and 103-109 were conclusively held to be directed to a single invention. See the parent Office Action attached as Exhibit “J.” It was by binding “agreement.” See page 2 of Exhibit “J.”

The USPO in the present application ignored the determination the claims comprised one invention in the parent and with bias crammed down the throats of the Applicants far more limiting restrictions, without meeting the prime facie burden of showing the alleged invention groupings to be non-obvious or separately patentable as required by MPEP 802.01:

35 U.S.C. 121 quoted in the preceding section states that the Commissioner may require restrictions if two or more “independent and distinct” inventions are claimed in one application. In 37 CFR 1.141, the statement is made that two or more “independent and distinct inventions” may not be claimed in one application.

* * * *

The term “distinct” means that two or more subjects as disclosed are related, for example, as combination and part

(subcombination) thereof, process and apparatus for its practice, process and product made, etc., but are capable of separate manufacture, use, or sale as claimed, AND ARE PATENTABLE (novel and unobvious) OVER EACH OTHER....

Now, six years after filing where more than twenty five percent of patent term has been lost, in this application claims 21-40 are arbitrarily separated into a different invention category from claims 10-20, 41-43, 51-54, 89-92, 94-97 and 103-109, earlier part of the same invention.

THE SPECIFICATION

The continuity statement has been amended to explicitly state the parent application is abandoned.

THE CLAIM OBJECTIONS

Claim 23 has been amended to remove “thin,” thereby solving the first objection.

In Claim 33 there is an antecedent basis for “the etched”, i.e. “electrodes...etched and patterned”. Thus the second objection is not well founded and should be withdrawn.

THE 35 U.S.C. § 112, SECOND PARAGRAPH, REJECTION

The Examiner maintains “internal only etched spaced electrodes” in claim 21 and “of internal reactants only in the nature of separate internal microfabricated electrodes” in claim 33 are ambiguous in violation of 35 U.S.C. § 112, second paragraph.

While the Applicants believe the language at issue satisfies § 112, second paragraph, to advance the prosecution and without prejudice “internal only” has been deleted from claim 21 and “internal...only” has been deleted from claim 33.

Accordingly, the § 112, second paragraph, rejection should be reconsidered and withdrawn.

THE 35 U.S.C. § 102(b) REJECTION AND RESPONSE

The Rejection

Claims 21-31, 33-36 and 38-40 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bates et al 5,455,126.

The Facts

Paragraphs 12-14, 24, 27-56 of the October 2004 Declaration of Rodney M. LaFollette, Ph.D. are incorporated by reference.

§ 102 Controlling Case Law

With the facts identified immediately above in mind, the initial reliance was and any further reliance on U.S.C. § 102 would be misplaced as such violates and would continue to violate the strict "every element" [or every step] and "every function" requirements of U.S.C. § 102. Restated, § 102 may be applied to a claim only when "every element" and "every function" of the claim is found in the § 102 reference. For example, Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Co. et. al., 221 USPQ 481, 485 (CAFC 1984), which emphasizes the "every element" requirement:

Anticipation requires the presence in a single prior art reference of each and every element of the claimed invention arranged as in the claim. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983); SSIH Equip. S.A. v. USITC, 718 F.2d 365, 218 USPQ 678 (Fed. Cir. 1983). In deciding the issue of anticipation, the trier of fact [Examiner] must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the alleged anticipation reference. (Emphasis supplied.)

RCA Corp. v. Applied Digital Data Systems, Inc., 221 USPQ 385, 389 at fn. 5 (Fed. Cir. 1984) emphasizes the "every function" requirement:

Anticipation is determined by comparison of the reference with the claims. The claims here define the invention in terms of several specific " means plus function" elements. The limitations which must be met by an anticipatory reference are those set forth in each statement of the function. In re Mott, 557 F.2d 266, 269, 194 USPQ 305, 307 (CCPA 1977). Such a limitation cannot be met by an element in a reference that performs a different function, even though it may be part of a device embodying the same general overall concept. (Emphasis added.)

The Federal Circuit confirmed the forgoing in Diversitech Corp. v. Century Steps, Inc., 7 USPQ2d 1315, 1317 (Fed. Cir. 1988):

For a prior art reference to anticipate in terms of 35 U.S.C. Section 102, every element of the claimed invention must be identically shown in a single reference. See Hybritech, Inc., v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1379, 231 USPQ 81, 90 (Fed. Cir. 1986), cert. denied, 107 S.Ct. 1606 (1987). (Emphasis provided).

Similarly, the Ninth Circuit, in Scott v. Inflatable Systems, Inc., 222 USPQ 460, 461 (9th Cir. 1983), has held:

Anticipation is a technical defense which must meet strict standards. Schroeder v. Owens-Corning Fiberglass Corp., 514 F.2d 901, 904, 185 USPQ 723, 725-26 (9th Cir. 1975). "Unless all of the same elements are found in exactly the same situation and united in the same way to perform the identical function in a single prior art reference, there is no anticipation." Walter v. General Motors Corp., 362 F.2d 56, 68 (9th Cir. 1966). (Emphasis supplied.)

Here, as in Ex parte Murphy and Burford, 217 USPQ 479, 481 (Bd. App. 1982), the Examiner must consider all of the limitations of the claims. In this regard, Ex parte Murphy and Burford holds:

Since all limitations of a claim must be considered in determining the claimed subject matter . . . and it is error to ignore specific limitations distinguishing over the reference. In re Boe, 505 F.2d 1297, 184 USPQ 38 (CCPA 1974).

The Examiner, in making the § 102 rejection, failed to give appropriate weight to functional statements tied to a specific structural means. This is error. As stated in Ex parte Bylund, 217 USPQ 492, 498 (Bd. of App. 1981):

... contrary to the Examiner's assertions, functional language in the claims must be given full weight and may not be disregarded in evaluating the patentability of the subject matter defined employing such functional language. (Emphasis provided.)

The foregoing is wholly consistent with MPEP § 2131:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegall Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the . . . claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but . . . identity of terminology is not required. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

Any attempt to read the present invention, as presently claimed, fully into any single reference, including Bates, does not comport in any way with the actual elements and functions disclosed in any reference of record. Withdrawal of § 102 as a basis for refusing allowance is, accordingly, appropriate and is courteously requested. It is not permissible to reconstruct, rearrange, alter or infer enablement into a reference and still comply with the statutory requirements of 35 U.S.C. § 102.

Conclusion as to § 102

Bates does not teach all the claimed structure and all the claimed function contained in claims 21-31, 33-36 and 38-40, strict requirements of § 102.

Under controlling case law, cited above, it is manifest error to disregard functional limitation in a claim, nor can the specific teachings of a reference be reworked or enablement imagined under

§ 102 to teach something different from that which is in fact enabled. See In re Payne et al., 203 USPQ 245,255(CCPA 1979). While In re Payne et al. is concerned about § 103, the holding thereof applies even with greater force and effect under § 102 because of the “every element” and “every function” mandate. Thus, “a reference must provide an enabling disclosure, i.e....[the reference] must place the claimed invention in the possession of the public”.

While many reasons exist as to why Bates is not a § 102 reference, a major one is demonstrated on page 17 of the October 2004 Declaration of Rodney M. LaFollette, Ph.D., at Figures “a” and “b.” The smallest battery available using the Bates technology is 60-70 times larger than a MEMS. See Figure “a.” Thus, the Bates battery can not be an internal or integrated source of power for a MEMS, but must be wire connected to the MEMS from an external location. See Figure “a.” This is the very problem addressed and amazingly solved by the Applicants. See Figure “b.”

Furthermore, integral formation of a MEMS and a Bates battery though oversized, would heat destroy the MEMS, rendering the combination unusable and inoperable.♦

Bates must be withdrawn as a § 102 reference as not meeting “every element” and “every function” requirement. The claims improperly rejected under § 102(b) are not anticipated and are clearly patentable over Bates. Allowance is courteously invited.

The 35 U.S.C. § 103(a) Rejection and Response

The Rejection

Claims 26-28, 32 and 37 are rejected and/or further rejected under 35 U.S.C. 103(a) as being unpatentable over Bates et al. 5,455,126 as applied to claim 30 above, and further in view of Miekka et al. 6,045,942.

The Facts

Paragraphs 12-14, 24, 27-71 of the October 2004 Declaration of Rodney M. LaFollette, Ph.D. are incorporated by reference.

Use of Bates Under § 103 on the Same Claims Rejected Under § 102 Admits Bates is Not a § 102 Reference

Comparing the § 102 and § 103 rejections, the USPO inconsistently contends Bates anticipates claims 26-28 and yet makes these claims obvious under § 103, which demonstrates a lack of understanding of these mutually exclusive statutory provisions and an admission that Bates is not a § 102 reference.

§ 103 Controlling Case Law

Response to the § 103 Rejections

Under § 103, where, as here, the prior art relied upon does not disclose or even hint, much less suggest the claimed MEMS microbattery, certain case law precedents come into play and control, as hereinafter set forth.

In addressing the question of whether or not the present invention is obvious or nonobvious under § 103, it is important that several factors be carefully weighed. First, case law requires that the Examiner engage in a "problem" analysis to determine whether or not the prior art addresses the same problem or a different problem than that which confronted the inventors prior to making the present invention. Hindsight reconstruction of the prior art based upon confidential access to the present application is not available to establish obviousness.

The problem confronting the present inventors is identified above. The inventors were able to solve that problem, whereas the prior art did not.

If it is the Examiner's contention that the prior art addresses Applicants' problems and provide Applicants' solutions, it is respectfully requested that the Examiner identify the locations in the references relied on where Applicants' problems and solutions are mentioned and addressed.

More specifically, "the relationship between the problem which the inventor . . . was attempting to solve and the problem to which any prior art reference is directed" is highly relevant. Stanley Works v. McKinney Manufacturing Co., 216 USPQ 298, 304 (Del. D.C. 1981). Thus, in analyzing the prior art under § 103 of the Act, we must clearly comprehend the problems addressed by the present inventor and such must be compared or contrasted, as the case may be, with the problem addressed by the prior art.

In respect to the applicability of any reference against claims of a pending U.S. patent application, the Examiner's attention is directed to In re Gibbons, 100 USPQ 398, where it is stated:

In considering the question of invention, it is necessary to determine whether or not the art relied upon contains adequate directions for the practice of the invention without resort to the involved application. (Emphasis added.)

The Examiner is courteously requested to find where in the references relied upon the requisite "adequate directions" are provided by the prior art relied on sufficient to reach the presently claimed microbattery integrated or integratable with a MEMS. Since the prior art relied upon is neither intended nor able to achieve what the Applicants have achieved, as set forth in the presently pending claims, it is respectfully submitted that no directions whatever are provided by the references which would lead to the present invention, as claimed. Accordingly, the references should be accurately construed and withdrawn.

The pertinent primary inquiries in determining obviousness under § 103 are set forth in the Supreme Court's decision in Graham v. John Deere, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). The primary considerations set forth therein require (1) [objective] determination of the scope and

content of the prior art; (2) identification as to the differences between the prior art and the claims at issue; and (3) resolution of the level of ordinary skill in the pertinent art.

In respect to the scope of the prior art and the differences standards, the § 103 criteria provided by In re Winslow, 151 USPQ 48 (CCPA 1966) is that the prior art must address and provide the inventor's answer to the particular problem confronting an inventor. Here, the references relied upon by the Examiner do not propose, expressly or inferentially or by sound reasoning, the claimed solution to the inventors' aforementioned problem. Consequently, the references fail the Winslow § 103 test.

In Orthopedic Company, Inc. v. United States, 217 USPQ 193 (Fed. Cir. 1983), the Federal Circuit set forth a useful guide for determining the scope and content of the prior art. Orthopedic, at pages 196, 197, also focuses on the "problem" faced by the inventor:

In determining the relevant art . . . one looks at the nature of the problem confronting the inventor.

* * * *

. . . would it then be nonobvious to this person of ordinary skill in the art to coordinate these elements in the same manner as the claims in suit? The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit [the patent application before the Examiner] as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of nonobviousness. . . . (Emphasis added.)

Applying the Federal Circuit's analysis in Orthopedic, it is clear the claims of the present application are allowable under § 103. Persons ordinarily skilled in the art would be charged only with an understanding of the express teachings of the individual references. These references do not expressly teach or suggest the claimed subject matter. To read into the references the inventors'

present solution, necessarily requires hindsight reliance on Applicants' application, contrary to the instructions of Orthopedic.

The references relied upon teach away from the present invention. No reference even hints at the Applicants' claimed invention. Hence, the references are not available to defeat the pending claims here, under § 103, giving effect to Orthopedic. If the Examiner persists in the § 103 rejection, it is again courteously requested that the locations in the references which propose or suggest Applicants' claimed MEMS sized battery be identified.

The Federal Circuit has also said that "[t]he claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." (Emphasis provided). Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick, 221 USPQ 481 (Fed. Cir. 1984). The above standard was reiterated in Fromson v. Advance Offset Plate, Inc., 225 USPQ 26 (Fed. Cir. 1985). Clearly, the present invention as set forth in the present claims are not obvious "as a whole" from the references.

The Board of Appeals confirms that hindsight reliance through confidential access to an application being examined, in an attempt to arrive at the claimed invention under 35 U.S.C. § 103, is negated. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. of App. 1985), which states:

To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. (Emphasis supplied).

Here, there is no express or implied suggestion in the references that the claimed invention could or should be used to solve the problem facing the present inventors. There is no convincing line of reasoning available in respect to the references by which an artisan would, as a matter of

obviousness, have arrived at the present claimed invention absent any suggestion, express or implied, in the reference of the solution fashioned by the present inventors, as set forth in the claims.

Here, the indication of nonobviousness is substantial, under the primary considerations of Graham, i.e., the basic irrelevance of the prior art to the claimed combination, failure of others to provide the inventor's solution over a long time both before and after the present invention and the fact that others have not foreseen the inventors' solution even though the prior art teachings have been around for some time. A determination of nonobviousness is compelling.

Nonobviousness follows from Panduit Corp. v. Dennison Manufacturing Co., 1 USPQ 2d 1593, 1605 (Fed. Cir. 1987):

Indeed, that the elements noted by the court lay about in the prior art available for years to all skilled workers, without, as the court found, suggesting anything like the claimed inventions, is itself evidence of nonobviousness. (Emphasis provided.)

Where, as here, the prior art is simply incapable of functioning as required by the present claims and achieving what is achieved by the present invention, § 103 rejections cannot be sustained.

Here as in Ex parte Gould, 231 USPQ 943, 946 (Bd. App. 1986):

... the examiner has failed to make out a prima facie case that ... [the prior art] achieved or is capable of achieving ... [what is achieved by the present invention] we are constrained to reverse the rejections based on ... [the prior art]. (Emphasis supplied.)

For the Examiner to assign attributes to the references which do not, in fact, exist and to entirely discount the critical language within the claims which is directed to Applicants' MEMS battery does not comply with the Graham requirement of [objectively] identifying the differences between the claimed invention and the prior art. Under In re Wood and Eversole, 202 USPQ 171, 174 (CCPA 1979), it was necessary:

... to more closely approximate the reality of the circumstances surrounding the making of an invention.... (Emphasis added.)

A brief examination of "hindsight" law as handed down by the Federal Circuit superimposed upon the facts of this case will be helpful.

See, for example, Union Carbide Corp. v. American Can Co., 220 USPQ 584, 591 (Fed. Cir. 1984):

... helps us to guard against slipping into hindsight rather than viewing the question as the inventor at the time the patented device was developed." (Emphasis provided.)

The hindsight approach was further criticized in W. L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303, 312-313 (Fed. Cir. 1983):

To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher. (Emphasis added.)

The Federal Circuit repeated its prohibition against "hindsight" in Uniroyal, Inc. v. Rudkin-Wiley Corp., 5 USPQ 2d 1434, 1438, 1439 (Fed. Cir. 1988), where it was held:

"When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself." Something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination.

* * * *

There is no suggestion in any individual prior art reference of such a combination of location and configuration nor is it suggested by the prior art as a whole. ([I]t is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention).

* * * *

... the district court . . . does not show that there is any teaching or suggestion in any of the references, or in the prior art as a whole, that would lead one with ordinary skill in the art to make the combination.

* * * *

In view of the antithetical principles of operation and the absence of any teaching or suggestion to combine these prior art devices, there is no apparent basis for the district court's conclusion that it would have been obvious to one skilled in the art to make the combination. (Emphasis added; citations omitted.)

The Uniroyal analysis applies here as well.

Clearly, the present invention is not obvious, based upon the analysis of primary considerations mandated by the U.S. Supreme Court in Graham.

The rejection under § 103 has a further malady. It fails to give any weight to the fact that the prior art patents teach away from the simplicity, reliability, power requirement and required size of the present invention. Here, as in In re Hedges, et al., 228 USPQ 685, 687 (Fed. Cir. 1986):

"The totality of the prior art disclosures leads substantially away from the claimed invention". We agree with . . . [Applicant] that the prior art as a whole must be considered. The teachings are to be viewed as they would have been viewed by one of ordinary skill. "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art". (Emphasis added; citations omitted.)

For the reasons stated, the § 103 rejections cannot be sustained.

Conclusion § 103

As pointed out in the § 102 arguments and in the October 2004 Declaration of Rodney M. LaFollette, Ph.D., the Bates technology is limited to an external power source for an integrated circuit. The smallest Bates battery is 60-70 times larger than a MEMS. If simultaneous manufacture of a MEMS and a Bates battery were attempted, the high temperatures required by Bates would destroy the MEMS.

Miekka does not teach a battery integratable with a MEMS, nor does Miekka teach that the Miekka technology can be combined with the teachings of Bates. In fact, the two are neither

compatible nor combinable. See the October 2004 Declaration of Rodney M. LaFollette, Ph.D., ¶

66:

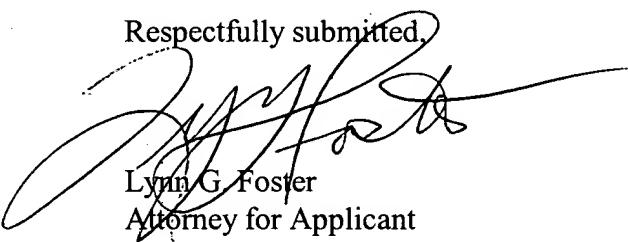
The Examiner erroneously asserts that it would have been obvious to anyone skilled in the art to make use of the specific liquid electrolyte material of Miekka (aqueous potassium hydroxide) and flow path "in the thin-film battery of Bates." This is upsettingly off target. Anyone even modestly skilled in the art of batteries would know that exposure of the electrode materials of Bates to a water, would ruin the Bates cell and render it inactive and perhaps dangerous. Further, the external electrolyte reservoir is only useful for extending the shelf-life of an aqueous battery, and is not needed in the solid-state battery of Bates, which (if properly constructed) is stable for years, even with their electrolyte in the cell.

Under § 103, a problem analysis is mandated under controlling case law. Neither Bates nor Miekka address in any way making a microbattery small enough and with adequate power to be operatively integrated with a MEMS. Neither reference discloses technology capable of doing so.

CONCLUSION

The objection and § 112 issues have been resolved. The § 102 and § 103 rejections can not endure close scrutiny and can not be sustained. Withdrawal of both and allowance of claims 21-40, as presently constituted, are courteously invited.

Respectfully submitted,



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